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| 10/607,811  | 06/27/2003  | Richard O. Slackman  | 1033-SS00382            | 8389             |
| 60533   | 7590        | 06/01/2006           | EXAMINER                |                  |
| TOLER SCHAFFER, LLP<br>5000 PLAZA ON THE LAKES<br>SUITE 265<br>AUSTIN, TX 78746 |             |                      | CHANNAVAJALA, SRIRAMA T |                  |
|   |             |                      | ART UNIT                | PAPER NUMBER     |
|   |             |                      | 2166                    |                  |

DATE MAILED: 06/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |  |   |  |
|------------------------------|--|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/607,811     | <b>Applicant(s)</b><br>SLACKMAN, RICHARD O. |  |
|                              | <b>Examiner</b><br>Srirama Channavajjala | <b>Art Unit</b><br>2166                     |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Amendment***

1. Claims 1-60 are pending in this application.
2. Examiner acknowledges applicant's amendment filed on 3/21/2006.
3. Claims 11,13,31,33,41,51,53-54 have been amended [3/21/2006].

***Drawings***

4. The Drawings filed on 6/27/03 are acceptable for examination purpose

***Information Disclosure Statement***

5. The information disclosure statement filed on 10/30/2003 is in compliance with the provisions of 37 CFR 1.97, and has been considered and a copy is enclosed with this Office Action.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. ***Claims 1,5-8,21, 25-28,41, 45-48, are rejected under 35 U.S.C. 102(e) as being anticipated by Mao et al. [hereafter Mao], US Patent No. 6728704.***

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8. As to claim 1,21,41, Mao teaches a system which including 'receiving a ranked list of search results from a search engine based on a search query' [col 1, 44-52, col 3, line 1-9], Mao directed to multiple search engines, more specifically search engines accepts query, searches network computers for information that satisfies the query and returns results in a ranking order as detailed col 1, line 47-52];

'estimating a relevance value of a particular search result in the ranked list based on its rank and actual relevance results' [col 3, line 12-19, col 5, 58-61, col 7, line 1-3], Mao specifically teaches each subset of entry is assigned a scoring value according to the scoring function, further scoring values are number ranges that indicate relevance value of a specific query result. Note: computer-readable storage medium having computer-readable program code to cause a computer to perform corresponds to Mao's computer-readable memory to instruct a computer to function [col 3, line 57-60col 8, line 43-44]

9. As to claim 5,25,45, Mao disclosed 'estimating comprises determining an interpolation function at the rank of the particular search result to estimate the relevance value' [col 6, line 14-18].

10. As to claim 6,26,46,Mao disclosed 'evaluating the interpolation function at the rank of the particular search result to estimate the relevance value' [col 6, line 29-35].

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11. As to claim 7,27,47, Mao disclosed 'linearly interpolating between two actual relevance values whose ranks bracket the rank of the particular search result' [col 6, line 45-47].

12. As to claim 8,28,48, Mao disclosed 'actual relevance values are supplied by the search engine' [col 5, line 32-34].

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**13. Claims 2-4,9-10,22-24,29-30,42-44,49-50 are rejected under 35 U.S.C. 103(a) as being unpatentable Mao et al. [hereafter Mao], US Patent No. 6728704 as applied to claims 1,21,41 above and further in view of Rose et al. [hereafter Rose] US Patent No. 5870740.**

14. As to claim 2, 22,42, Mao disclosed 'ranks of the at least two others of the search results' [col 5, line 66-67, col 6, line 1-3]. It is however, noted that Mao does not specifically teach 'estimating comprising fitting a curve, to represent relevance as a function of rank to the actual relevance values'. On the other hand, Rose disclosed 'estimating comprising fitting a curve, to represent relevance as a function of rank to the actual relevance values' [col 4, line 56-67, col 5, line 1-4, col 6, line 57-60, col 7, line 35-39, fig 3]

It would have been obvious to one of the ordinary skill in the art at the time of Applicant's invention to incorporate the teachings of Rose et al. into merging result list from multiple search engines of Mao et al. because both Rose and Mao are directed to querying, more specifically both are directed to scoring, ranking of search list or result [see Mao: col 3, line 2-7; Rose: Abstract, fig 1b, element 160], and both Mao, and Rose specifically suggests focusing on each item in the subset assigned a scoring or ranking value [see Mao: col 3, line 4-6; Rose: fig 1b, element 160], while Mao also teaches

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assigning a probability values where higher probability values are likely to be selected in a list [see Mao: col 6, line 20-24].

One of the ordinary skill in the art at the time of Applicant's invention to incorporate the teachings of Rose et al. into merging result list from multiple search engines of Mao et al. because that would have allowed users of Mao to ordering the search list from the most relevant items to the least relevant items using existing relevance-ranking algorithms [see Rose: col 5, line 59-61], and adjusting the score according to the relevance-ranking algorithm for example as detailed [see Rose: col 6, equations 1-2] bringing the advantages of estimating values fall between specified values that produces cosine function to measure similarity [see Rose: col 7, line 4-8], thus improving both short and long query in which retrieved item's score calculated from relevance-ranking algorithm [see Rose: col 5, line 5-12].

15. As to claim 3,23,43, Rose disclosed 'evaluating the curve at the rank of the particular search result to estimate the relevance value' [col 7, line 4-9].

16. As to claim 4,24,44, Rose disclosed 'curve is a line' [see fig 3a-3d].

17. As to claim 9,29,49, Rose disclosed 'actual relevance values are not supplied by the search engine' [col 7, line 46-50].

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18. As to claim 10,30,50, Mao disclosed 'determining a first actual relevance value for a most relevant one of the search result' [col 5, line 58-61]; 'determining a second actual relevance value for a least relevant one of the search results' [col 5, line 66-67, col 6, line 1]; 'wherein said estimating comprises linearly interpolating between the first actual relevance value and the second actual relevance value' [col 6, line 20-24].

***Claim Rejections - 35 USC § 102***

19. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***20. Claims 11-13,31-33,51-53 are rejected under 35 U.S.C. 102(b) as being anticipated by Dutta, US Publication No. 2002/0078045 published on June 20,2002***

21. As to claim 11,31,51, Dutta teaches a system which including 'weighting search results from a search engine based on a search query' [fig 3,page 7, col 1, 0045,



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line, 1-11], Dutta specifically teaches search engine searches and ranking the results according to the weights as detailed in page 7, col 1, 0045, line 1-11;

‘determining a plurality of categories associated with the search query’

[page 7, col 2, 0046, line 27-31, fig 5] plurality of categories corresponds to Dutta’s fig 5, element 82;

‘for each of the categories, determining an associated category weighting value for the search engine’ [page 7, col 2, 0047, line 1-7], Dutta specifically teaches each category associated with category weight further associated to file indexed within a search database, category weight related to degree of relevance as detailed in col 2, 0047, line 1-7;

‘determining a first associated relevance value for each of the categories based on the search query and one or more query terms associated with the category’ [page 7, col 2, 0047, page 8, col 1, 0048, line 1-3], Dutta specifically teaches database search query may include keywords associated with the files, further keywords are used to match search terms that satisfy the search criteria as detailed in page 7, 0047;

‘determining a search engine weighting value based on the category weighting values and the first associated relevance values’ [page 8, col 1, 0048, line 15-30, col 2, 0051]

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22. As to claim 12-13,32-33,52-53, Dutta disclosed 'determining a second associated relevance value for each of the categories by dividing its first associated relevance value by a sum of all of the first associated relevance values' [page 9, col 2, 0053, line 2-9], it is further noted that Dutta specifically teaches search results list is ranked i.e., ranking search results in accordance with the category [page 7, col 2, 0046, line 19-20], also each category is assigned weight related to file index within search database [page 7, col 2, 0047, line 1-2].

**23. *Claims 14-15,17-20,34-35,37-40, 54-55,57-60 are rejected under 35 U.S.C. 103(a) as being unpatentable Mao et al. [hereafter Mao], US Patent No. 6728704 filed on Aug 27,2001, published on April 27, 2004 in view of Rose et al. [hereafter Rose] US Patent No. 5870740.***

24. As to claim 14, 34,54,Mao teaches a system which including 'submitting a search query to a plurality of search engines' [col 2, line 29-33, col 4, line 41-48];

'receiving, from each of the plurality of search engines [col 2, line 66-67], an associated ranked list of search results based on the search query' [col 3, line 1-7];

'receiving a plurality of actual relevance values for a plurality of the search results based on the search query' [col 3, line 14-19];

'for at least one of the search results absent the actual relevance value, estimating its relevance value based on its rank, and the ranks and the actual relevance values of at least two others of the search results' [col 5, line 36-42, line 46-54], Mao suggests firstly result lists having most relevant values, secondly small number of

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entries from each list is selected based on subset selection criteria or technique [col 5, line 46-48], thirdly, Mao suggests “n” number of items or documents are selected from each list randomly;

‘determining, for each of the plurality of search engines, an associated value’ [col 5, line 56-57];

‘determining, for each of the ranked lists, an associated relevance value for each of its search results based on the estimated relevance value or the actual relevance value of the search result’ [col 5, line 58-67, col 6, line 1-5], Mao specifically teaches scoring values for each list , further score values may be the arithmetic average or a value proportional to the average for a set of scoring values [co 6, line 1-4];

‘combining the ranked lists into a single list’ [col 6, line 6-8], Mao specifically teaches merge or rank all entries from every list based on the score for each list as detailed in fig 2, element 80;

‘sorting the search results in the single list based on the relevance values’ [col 6, line 6-13], Mao specifically teaches not only merging the result list and rank all entries from all the list, but also selecting the list with highest representative value or scoring value that corresponds to sorting the search results;

It is however, noted that Mao does not specifically teach “weighting value associated with the search engine”, although Mao teaches results list from multiple search engines having scoring values is assigned to each entry as detailed in col 6,

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line 30-37, fig 3. On the other hand, Rose suggests "weighting value associated with the search engine" col 2, line 29-32, col 3, line 1-3, line 4-6].

It would have been obvious to one of the ordinary skill in the art at the time of Applicant's invention to incorporate the teachings of Rose et al. into merging result list from multiple search engines of Mao et al. because both Rose and Mao are directed to querying, more specifically both are directed to scoring, ranking of search list or result [see Mao: col 3, line 2-7; Rose: Abstract, fig 1b, element 160], and both Mao, and Rose specifically suggests focusing on each item in the subset assigned a scoring or ranking value [see Mao: col 3, line 4-6; Rose: fig 1b, element 160], while Mao also teaches assigning a probability values where higher probability values are likely to be selected in a list [see Mao: col 6, line 20-24].

One of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Rose et al. into merging result list from multiple search engines of Mao et al. because that would have allowed users of Mao to ordering the search list from the most relevant items to the least relevant items using existing relevance-ranking algorithms [see Rose: col 5, line 59-61], further calculating weights with respect to vectors that represents documents that allows to compare the score according to the relevance-ranking algorithm for example as detailed [see Rose: col 2, line 24-32] bringing the advantages of improving both short and long query in which retrieved item's score calculated from relevance-ranking algorithm [see Rose: col 5, line 5-12].

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25. As to claims 15,35,55, Rose disclosed 'actual values comprise normalized, search-engine supplied relevance values' [col 2, line 29-32].

26. As to claims 17,37,57, Rose disclosed 'fitting a curve, to represent relevance as a function of rank, to the actual relevance values and the ranks of the at least two others of the search results' [col 7, line 4-10, fig 3]; 'evaluating the curve at the rank of the particular search result to estimate the relevance value' [col 7, line 11-17].

27. As to claim 18,38,58, Mao disclosed 'determining an interpolation function, to represent relevance as a function of rank, for the actual relevance values and the ranks of the at least two others of the search results' [col 6, line 14-18]; 'evaluating the interpolation function at the rank of the particular search result to estimate the relevance value' [col 6, line 29-37].

28. As to claim 19,29,59, Mao disclosed 'actual relevance values are supplied by the search engine' [col 5, line 32-34].

29. As to claim 20,30,60, Rose disclosed 'actual relevance values are not supplied by the search engine' [col 7, line 46-50].

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**30. Claims 16,36,56 are rejected under 35 U.S.C. 103(a) as being unpatentable**

**Mao et al. [hereafter Mao], US Patent No. 6728704 , Rose et al. [hereafter Rose]**

**US Patent No. 5870740as applied to claims 1,21,41 above and further in view of**

**Dutta, US Pub.No. 2002/0078045 published on June 20,2002.**

31. As to claims 16,36,56, Mao and Rose both disclosed search engine [see Mao: fig 1, element 16, element 40; Rose: col 3, line 1-3]; Mao and Rose both disclosed 'search query' [Mao: fig 2, element 70; Rose: fig 1b, element 150], Mao and Rose both disclosed determining scoring values [see Mao: fig 2, element 76; Rose: col 6, line 7-9]; further Rose also disclosed determining weighting value' [col 2, line 24-25, line 29-32]; both Mao and Rose disclosed relevance value for each query' [Mao: col 7, line 1-3; Rose: col 4, line 56-64]. It is however, noted that both Mao and Rose do not specifically teach 'plurality of categories associated with the search query, category search engine weighting value for each of the categories, categories based on the search query and one or more query terms associated with the category, each of the categories by dividing its first associated relevance value by a sum of all first associated relevance values, each product of the associated category search engine weighting value and the second associated relevance value'.

On the other hand Dutta disclosed, 'plurality of categories associated with the search query' [page 7, col 2, 0046, line 27-31, fig 5] plurality of categories corresponds to Dutta's fig 5, element 82;'category search engine weighting value for each of the categories' [page 7, col 2, 0047, line 1-7], Dutta specifically teaches each category

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associated with category weight further associated to file indexed within a search database, category weight related to degree of relevance as detailed in col 2, 0047, line 1-7;,'categories based on the search query and one or more query terms associated with the category'[page 7, col 2, 0047, page 8, col 1, 0048, line 1-3], Dutta specifically teaches database search query may include keywords associated with the files, further keywords are used to match search terms that satisfy the search criteria as detailed in page 7, 0047 , ' each of the categories by dividing its first associated relevance value by a sum of all first associated relevance values'[page 9, col 2, 0053, line 2-9]. 'each product of the associated category search engine weighting value and the second associated relevance value'[page 8, col 1, 0048, line 15-30, col 2, 0051].

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Dutt into retrieval of relevance ranking and score of the documents of Rose et al, merging results list from multiple search engines that represent scoring values of Mao et al. because Dutt, Rose and Mao all directed to querying documents using multiple search engines, more specifically Rose and Mao are directed to querying, more specifically both are directed to scoring, ranking of search list or result [see Mao: col 3, line 2-7; Rose: Abstract, fig 1b, element 160], and both Mao, and Rose specifically suggests focusing on each item in the subset assigned a scoring or ranking value [see Mao: col 3, line 4-6; Rose: fig 1b, element 160], while Mao also teaches assigning a probability values where higher probability values are likely to be selected in a list [see Mao: col 6, line 20-24], while Dutta is

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directed to identifying, assigning the categories, specifically search result list ranked such that the file having the highest category weight is ranked first while the file having the lowest file having the lowest category weight is ranked last [Dutta: page 2, col 2, 0015].

One of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Dutta into retrieval of relevance ranking and score of the documents of Rose et al, merging results list from multiple search engines that represent scoring values of Mao et al. because that would have allowed users of Mao, Rose to incorporate identifying, assigning various categories associated with weight factor that is part of additional ranking criteria, further search result list may be ranked such that highest combined category first, lowest combined category last [sorting], bringing the advantages of improving the overall information retrieval, specifically allows user to examine more relevant search results, thus improving the overall ranking, categorization of information as suggested by Dutta [page 2, col 1, 0013].



***Response to Arguments***

Applicant's arguments filed on 3/21/2006 with respect to claims 1-60 have been fully considered but they are not persuasive, for examiner's response, see discussion below:

a) At page 15, claim 1, page 18, claim 41, applicant argues that "Mao does not disclose or suggest estimating a relevance value of a particular search result in the ranked list based on its rank and actual relevance values and ranks of at least two others of the search results.....None of the scoring values in the subsets of Mao are estimated, they are all assigned according to a scoring function.

As to the above argument [a], Examiner notes firstly, Mao is directed to merging result lists from multiple search engines, more specifically Mao suggests each result list assigned a scoring value based on the search results received from the search engines [col 3, line 1-9], secondly, Mao specifically teaches each result list is assigned a value based on a function of scoring values assigned to its entries that corresponds to estimating specific search results as detailed in col 3, line 12-19, further it is also noted that Mao suggests the closeness of the scoring values for example scoring values are number that typically represent how closely the entry matches the query is typically an estimation of relevance value of specific search [col 5, line 58-61], therefore, the instant claim language "estimating a relevance value of.....search results "reads-on" the scoring values typically represent how closely matches the query results of Mao et al.

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Examiner applies above arguments to the claims 2-10, 42-50 depend from claim 1, 40 respectively..

b) At page 16, claim 11, applicant argues that "Dutta does not disclose or suggest determining a search engine weight value based on the category weighting values and the first associated relevance values"

c) At page 18, claim 31, page 19, claim 51, applicant argues that Dutta does not disclose determining a search engine weighting value based on the category weighting values and the first associated relevance values"

As to the argument [b-c], first, Dutta is directed to ranking search results using user category weighting, more specifically, searching user desired information categorized, ranked and assigned weight values [see Abstract, fig 6], secondly, it is noted that each indexed file associated with category weight [page 2, col 2, 0015, line 5, page 7, col 2, 0047, line 1-2], furthermore, list may be ranked such a way that highest category weight is ranked first, while the file having the lowest category weight is ranked last [page 2, col 2, 0015, line 9-12], thirdly, each category weight values are different because it is associated with the search results list [page 8, col 1, 0048, col 2, 0051], therefore, the instant claim language "determining a weighting value based on the category weighting .....relevance values "reads-on" the category weight values assigned based on search results relevance ranking value of Dutta .

Examiner applies above arguments to the claims 12-13, 32-33,55-60 depends from claim 11, 33,54 respectively.

d) At page 17, claim 14, page 18, claim 34, page 19, claim 54, applicant argues that Rosa fails to disclose or teach the aforementioned element of claim 14 discussed above in relation to Mao and Applicant respectfully submits that a prima facie case of obviousness does not exist based on the combination of Mao and Rose as all of the elements of claim 14 are not found in the combination of reference

In response to applicant's argument [d] that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Mao et al. is directed to multiple search engines search results, more specifically result lists returned from multiple search engines are merged based on assigned values to each result list [see Abstract, fig 3. It is also noted that Mao specifically teaches ranking or merging all the information from every list and assigning a value or scoring value [col 6, line 6-13], possibly with highest average scoring value. On the other hand Rose is directed to ranking the query results, more specifically, ranking results of documents related to

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queries from multiple search engines [col 2, line 66-67, col 3, line 1-3], it is noted that both Mao and Rose specifically teaches multiple search engines ranking documents.[Mao: Abstract; Rose: col 3, line 1-3]; both Mao and Rose specifically teaches ranking and/or scoring algorithm [Mao: col 3, line 2-7, col 6, line 29-37, fig 3; Rose: col 4, line 31-34], and both Mao and Rose specifically suggests each item in the subset assigned a scoring or ranking value [Mao: col 3, line 4-6; Rose, fig 1b, element 160], furthermore, Mao suggests assigning a probability value that would have higher probability values are likely to be selected from the list [Mao: col 6, line 20-24] and both are from same field of endeavor.

Therefore, one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Rose et al. into merging result list from multiple search engines of Mao et al. because that would have allowed users of Mao to ordering the search list from the most relevant items to the least relevant items using existing relevance-ranking algorithms [see Rose: col 5, line 59-61], further calculating weights with respect to vectors that represents documents that allows to compare the score according to the relevance-ranking algorithm for example as detailed [see Rose: col 2, line 24-32] bringing the advantages of improving both short and long query in which retrieved item's score calculated from relevance-ranking algorithm [see Rose: col 5, line 5-12].

e) At page 17, claim 21, applicant argues that Mao fails to disclose or suggest an apparatus estimating a relevance value of a particular search result in the ranked list based on its rank and actual relevance values and ranks of at least two other of the search results.

As to the argument [e], it is noted that applicant's remarks at page 17-18 of the response, are merely conclusory statements, without any support. Applicant merely repeating the language of the claim, without addressing examiner's particular interpretation of the reference as presented in the previous office action, and without specifying how the instant claim address the issues raised by the examiner. Mao et al.

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Is directed to multiple search engines result list, more specifically, merging multiple result lists from multiple search engines associated with scoring value in accordance with scoring function for each result list [see col 3, line 1-7], furthermore, it is also noted that Mao specifically teaches ranking entries from every list [col 6, line 1-3, fig 2]. Mao also teaches scoring values are assigned to each entry, calculating average scoring values, based on the average scoring values, the results list are merged into merged list as detailed in col 6, line 29-37, fig 3. Mao also suggests calculating probability values equal to its average scoring value's percentage of the total of all average scoring values i.e., result list is assigned a probability values [col 7, line 35-42].

Examiner applies above arguments to the depend claims 22-30.

### ***Conclusion***

#### **The prior art made of record**

|               |             |
|---------------|-------------|
| US Pub. No.   | 20020078045 |
| US Patent No. | 6728704     |
| US Patent No. | 5870740     |


**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srirama Channavajjala whose telephone number is 571-272-4108. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alam, Hosain, T, can be reached on (571) 272-3978. The fax phone numbers for the organization where the application or proceeding is assigned is 571-273-8300 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)

SC  
Patent Examiner.  
May 22, 2006.

  
SRIRAMA CHANNAVAJJALA  
PRIMARY EXAMINER